REFRACTION OF LIGHT AT CURVED SURFACES

$$\frac{n_1}{v} + \frac{n_2}{u} = \frac{n_2 - n_1}{R}$$

1. in this curved surface formula R refers to [ ]

A) Refractive index of first medium B) Refractive index of second medium C) both D)radius of curvature

2. If a bird flying in the sky looks vertically down and sees a fish in water. How does the fish appear to the bird ? [ ]

A) At its actual position B) farther away than its actual distance

C) Closer than its actual distance D) Can not be seen

3. Formula for refraction at plane surface [ ]

A) $n_1/u = n_2/v$ B) $n_1/n_2 = u\ v$ C) $n_1/v = n_2/u$ D) $n_1/n_2 = v/u$

4. A bird is flying down vertically towards the surface of water in a pond with constant speed. There is a fish inside the water. If that fish is exactly vertically below the bird, then the bird will appear to the fish to be: [ ]

i. Farther away than its actual distance ii. Closer than its actual distance

iii. Moving faster than its actual speed iv. Moving slower than its actual speed

A) i is correct B) ii is correct C) iii is correct D) A and C are correct

5. A _____ is formed when a transparent material is bounded by two surfaces of which one or both surfaces are spherical or curved [ ]

A)mirror B) lens C) prism D)NONE OF THESE

6. Match the following and choose the correct pair. [ ]

1) Lens which is thick at the middle and thin at the edges. a) Bi - convex lens

2) Lens which is bound by two spherical surfaces bent towards the same, Thin at the middle and thicker at the edges. b) Concavo - convex lens

c) Convexo - concave lens

A) 1-a, 2-b B) 1-a,2-c C) 1-b, 2-c D) 1-b,2-a

7. From below mentioned lenses, which one is not a converging lens ? [ ]

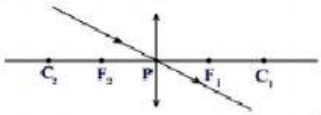
A) Bi - convex lens B) Concavo convex lens C) Plano convex lens D) convexo concave lens

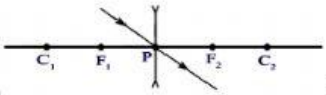
8. We represent convex lens with a symbol

A)↕ B) C) ↔ D)NONE OF THESE

9. We represent concave lens with a symbol

A)↕ B) C) ↔ D)NONE OF THESE

10. 



Any ray passing through the optic centre is _____

A) deviates B) undeviates C) A and B D) none of these

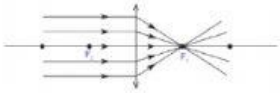
11. The line joining the two centres of curvature of a lens is called .....[ ]

A) Optic centre B) Principal axis C) Focus D) Focal length

12. Any ray passing through the optic centre of the lens.... [ ]

A) Will take a path parallel to the principal axis after refraction. B) Passes through focus after refraction.

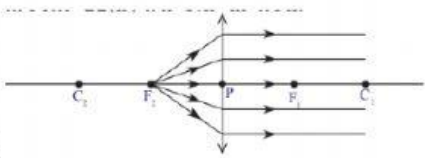
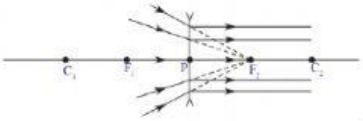
C) Passes through the centre of curvature. D) is undeviated, after refraction.

13. 

light rays passing parallel to the principal axis converge at the _____ or

appear to diverge from the _____. [ ]

A) Optic centre B) Principal axis C) Focus D) Centre of curvature

14. 

.the light rays passing through the focus will take a path _____ to principal axs after refraction. [ ]

A) Making some angle B) Parallel C) perpendicular D) none of these

LIVEWORKSHEETS